

computers & graphics

**an international journal
of systems & applications
in computer graphics**

**algorithms and techniques for interaction,
multimedia, modelling and visualization**

Editor-in-Chief
J. L. Encarnaçāo
Technische Hochschule Darmstadt

List of Contents and Author Index

Volume 18, 1994



PERGAMON

computers & graphics

Editor-in-Chief: José L. Encarnaçao

Technische Hochschule Darmstadt, FG Graphisch-Interaktive Systeme,
Wilhelminenstr. 7, 64283 Darmstadt, Germany

Associate Editors: Peter R. Bono

Fraunhofer CRCG, 167 Angell Street,
Providence, RI 02906, USA

M. Frühauf

ZDGV
Wilhelminenstr. 7
64283 Darmstadt, Germany

Associate Editor for

Section "Chaos & Graphics": Clifford A. Pickover

IBM Thomas J. Watson Research Center
Yorktown Heights, NY 10598, USA

Editorial Advisory Board

Varol Akman
Ankara, Turkey

Farhad Arbab
Amsterdam, Netherlands

Wilhelm Barth
Wien, Austria

R. Daniel Bergeron
Durham, NH, USA

Jan van den Bos
Rotterdam, Netherlands

Ken Brodie
Leeds, England

Pere Brunet
Barcelona, Spain

Peter Comninou
Dorset, UK

David Duce
Chilton, Didcot, UK

André Ducrot
Le Chesnay, France

Bianca Falcidieno
Genova, Italy

James D. Foley
Atlanta, GA, USA

Ilio Galligani
Bologna, Italy

Robert K. L. Gay
Singapore

Michael Gervautz
Wien, Austria

Bernd Girod
Erlangen, Germany

Martin Göbel
Darmstadt, Germany

Donald P. Greenberg
Ithaca, NY, USA

Georges Grinstein
Lowell, MA, USA

Markus Groß
Zürich, Switzerland

Richard A. Guedj
Evry Cédex/Les Epinettes, France

Bertram Herzog
Ann Arbor, MI, USA

Frederic W. Jensen
Delft, Netherlands

Arie Kaufman
Stony Brook, NY, USA

Fumihiko Kimura
Tokyo, Japan

Lars Kjeldahl
Stockholm, Sweden

Stanislav Klimenko
Protvino, Russia

Wolfgang Krueger
Sankt Augustin, Germany

Detlef Krömer
Darmstadt, Germany

Jean-Claude Latombe
Stanford, CA, USA

Gerardo León Lastra
Cuernavaca, Mexico

Alan Levit
Basingstoke, Hants, UK

Carl Machover
White Plains, NY, USA

Sudhir P. Mudur
Juhu, Bombay, India

Eiachiro Nakamae
Shobara, Japan

Erich J. Neuhold
Darmstadt, Germany

Robert D. Parslow
Hampton, Middlesex, UK

Bernard Peroche
St. Etienne, Cédex, France

Richard Phillips
Los Alamos, NM, USA

Kenneth Preiss
Beer Sheva, Israel

Philip K. Robertson
Canberra, Australia

David H. Salesin
Seattle, WA, USA

Jiaoying Shi
Hangzhou, China

Václav Skala
Plzen, Czech Republic

Wolfgang Strasser
Tübingen, Germany

Yasuhito Suenaga
Kanagawa, Japan

José Teixeira
Coimbra, Portugal

Tetsuo Tomiyama
Tokyo, Japan

Bodo Urban
Rostock, Germany

Charles Woodward
Helsinki, Finland

Shin Ting Wu
Campinas, Brazil

Production Editor: Bruce Cooper, E-mail Address: B.COOPER@ELSEVIER.COM

Publishing, Subscription, and Advertising Office: Elsevier Science Inc., 660 White Plains Road, Tarrytown, New York, 10591-5153, USA, E-mail Address: ESUK.USA@ELSEVIER.COM; and Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, England.

Published Bimonthly. Annual Institutional Subscription Rate 1995: North, Central and South America, US \$827.00, Rest of World £555.00. Associated Personal Subscription Rates are available on request for those whose institutions are library subscribers. Sterling prices exclude VAT. Non-VAT registered customers in the European Community will be charged the appropriate VAT in addition to the price listed. Prices include postage and insurance and are subject to change without notice.

Application to mail at second class postage rate is pending at Newark, NJ. Postmaster send address corrections to *Computers & Graphics*, Elsevier Science Inc., 660 White Plains Road, Tarrytown, NY 10591-5153, USA.



Pergamon

Comput. & Graphics, Vol. 18, No. 6, pp. III-XIV, 1994
Copyright © 1994 Elsevier Science Ltd
Printed in Great Britain
0097-8493/94 \$6.00 + .00

List of Contents

NUMBER 1

In this issue the special topic is IMAGE COMMUNICATION

Guest Editors: Detlef Krömker and David Duce

David A. Southard

Image Communication

- 1 Computers & Graphics Best Paper Award (1992)

**Detlef Krömker and
David Duce**

Shigeru Yamazaki

Image Communication

- 3 Guest editors' introduction

**L. T. Chia,
D. J. Parish
and J. W. R. Griffiths**

- 7 ISDB: A layered model for integrated services digital broadcasting

**Rüdiger Strack,
Christof Blum,
David Duce,
Dale Sutcliffe,
Narciso García,
María J. Pérez-Luque,
Eckhard Moeller
and Hauke Peyn**

- 11 On the treatment of video cell loss in the transmission of motion-JPEG and JPEG images

- 21 Image communication open architecture

**Norbert Gerfelder
and Christian Neuss**

- 35 The image communication information board: A hypermedia information system for standards and activities in the area of image communication

**Ching-Kuang Shene
and John K. Johnstone**

Technical Section

- 47 Computing the intersection of a plane and a revolute quadric

Muhammad Sarfraz

- 61 Generalized geometric interpolation for rational cubic splines

Thomas Fröhlauf

- 73 Interactive visualization of vector data in unstructured volumes

**Weixin Xia,
Guorong Xuan
and Peiqi Chai**

- 81 Periodic pattern graphics

**J. McCartney,
B. K. Hinds and
J. J. Zhang**

- 87 Leather texture synthesis and rendering

- Philippe Aigrain and Philippe Joly**
- Sudhanshu K. Semwal and John J. Hallauer**
- Sandy D. Balkin, Elizabeth L. Golebiewski and Clifford A. Reiter**
- Michael Frame and Maureen Angers**
- David Walter**
- Dieter W. Fellner and Christoph Helmberg**
- John A. Gregory, Muhammad Sarfraz and P. K. Yuen**
- M. I. G. Bloor and M. J. Wilson**
- Shinji Mukai, Susumu Furukawa, Makoto Obi and Fumihiko Kimura**
- Daniel VanArsdale**
- Stefan Haas**
- 93 The automatic real-time analysis of film editing and transition effects and its applications
- 105 Biomechanical modeling: Implementing line-of-action algorithm for human muscles and bones using generalized cylinders
- Chaos and Graphics*
- 113 Chaos and elliptic curves
- 119 Some nonlinear iterated function systems
- 127 Computer art from Newton's, Secant, and Richardson's methods
- Announcements*
- 133 Past/future issues
- 135 List of 1993 reviewers
- 137 Call for participation—Eurographics '94
- 139 Call for contributions—Fifth Eurographics Workshop on Rendering
- 140 Computer Graphics Tutorial
- 141 Call for contributions—Fifth Eurographics Workshop on Visualization in Scientific Computing
- 142 Computer Graphics Prize
- I Software Survey Section
- NUMBER 2**
- Technical Section*
- 143 Best approximate general ellipses on integer grids
- 153 Interactive curve design using C^2 rational splines
- 161 Local control of surfaces generated using partial differential equations
- 171 An algorithm for deciding similarities of convex polyhedra
- 177 Homogeneous transformation matrices for computer graphics
- 193 Objects and Views

- Tetsuya Yoshimura,
Yasuhiro Nakamura and
Masataka Sugiura**
- Michael M. S. Chong, Han
Ngee Tan, Jun Liu and
Robert K. L. Gay**
- Volker Jung**
- William J. Gilbert**
- D. Canright**
- A. G. Davis Philip, Michael
Frame and Adam Robucci**
- Steven Hollasch**
- Reviews of Books and Videotapes*
- 201 3D direct manipulation interface: Development of the Zashiki-Warashi system
- 209 Geometric representation for structural analysis in image postprocessing
- 219 HIST: A geographic information system for the support of historic research
- 227 *Chaos and Graphics*
Newton's method for multiple roots
- 231 Estimating the spatial extent of attractors of iterated function systems
- 239 Warped midgets in the Mandelbrot set
- Announcements*
- 249 Advanced animation and rendering techniques by Alan Watt and Mark Watt
- 251 Past/future issues
- 253 Creation of the Canopy Research Network
- 254 Computer Animation '94
- 255 Call for Participation—1994 Symposium on Volume Visualization
- 256 Call for Papers—*Computers & Graphics* special issue on Computer Graphics Art
- 257 Computer Graphics Prize
- I Software Survey Section

NUMBER 3

In this issue the special topic is
COMPUTER GRAPHICS IN EDUCATION
Guest Editors: Ken Brodlie and G. Scott Owen

**Ken Brodlie and
G. Scott Owen**

**Ken Brodlie, Terry Hewitt,
Steve Larkin, Phil Willis
and Julian Gallop**

- Computer Graphics in Education*
- 259 Guest Editors' Introduction
- 263 Graphics and Visualization—Techniques and tools: A course for postgraduates of all disciplines

C. C. Lilley, F. Lin, W. T. Hewitt and T. L. J. Howard	269 The design and development of distance learning materials for graphics and visualization
Gitta O. Domik	277 Visualization education
Bernard M. Diaz	281 A place for novelty in graphics and visualization education
D. B. Arnold and A. M. Day	287 "Graphics standards are boring"—Discuss
Jean-Claude Lafon	295 2D and 3D graphics with PostScript and PHIGS
S. C. Maddock	299 A personal CAL workbook
G. Scott Owen	305 Teaching image synthesis as a physical science
José Carlos Teixeira and Joaquim Silvestre Madeira	309 A computer graphics curriculum at the University of Coimbra
 <i>Technical Section</i>	
Bert Jüttler	315 Visualization of moving objects using dual quaternion curves
Kuo-Liang Chung and Wen-Ming Yan	327 A fast algorithm for cubic B-spline curve fitting
Chyi-Hwa Chu and Yuang-Cheh Hsueh	335 An adaptive enhancement algorithm for quantized images
Horace H. S. Ip, Helena T. F. Wong and Florence Y. Mong	343 Fractal coding of Chinese scalable calligraphic fonts
Chee Kai Chua, Robert Gay and Wolfgang Hoheisel	353 A method of generating motifs aligned along a circular arc
Sandeep Dani, Joel H. Tohline, Warren N. Waggoner, Jr. and David E. Thompson	363 Parallel rendering of curvilinear volume data
D. Arquès and O. Grange	373 Digital topology in 2.5 D: An application to topological filling of well-nested objects
Hans-Heino Ehrcke, Klaus Donner, Walter Koller and Wolfgang Straßer	395 Visualization of vasculature from volume data
 <i>Chaos and Graphics</i>	
Clifford A. Pickover	407 Automatic parallel generation of Aeolian fractals on the IBM Power Visualization System
J. C. Sprott	417 Automatic generation of iterated function systems

- Announcements*
- 427 Past/future issues
- 429 IEEE Tencon '94
- 430 International Conference Pacific Graphics '94/CADDM'94
- 431 Fifth Eurographics Workshop on Animation and Simulation
- 432 Workshop on Integration of CA-Techniques In Theory and Practice/ICA '94
- 433 RIAO '94/Intelligent Multimedia Information Retrieval Systems and Management
- 435 1994 Symposium on Volume Visualization
- 436 International Dedicated Conference on Robotics, Motion and Machine Vision
- 437 Multimedia Transport and Teleservices
- 439 First IEEE International Conference on Image Processing
- 440 CAPE '95/First Announcement and Call For Papers

I Software Survey Section

NUMBER 4

In this issue the special topic is
MODELLING, RENDERING AND ANIMATION TECHNIQUES
Guest Editor: Zesheng Tang

Zesheng Tang

Modelling, Rendering and Animation Techniques

- 441 Guest Editor's Introduction

**Ronan Boulic,
Zhiyong Huang,
Nadia Magnenat
Thalmann and
Daniel Thalmann**

- 443 Goal-oriented design and correction of articulated figure motion with the TRACK system

**Armin Bruderlin,
Chor Guan Teo and
Tom Calvert**

- 453 Procedural movement for articulated figure animation

**Xiuwei Zhao and
Jiaguang Sun**

- 463 Reconstruction of a symmetrical object from its perspective image

- Norishige Chiba,
Ken Ohshima,
Kazunobu Muraoka,
Mamoru Miura
and Nobuji Saito**
- Hujun Bao and
Qunsheng Peng**
- Prosenjit Bose and
Godfried Toussaint**
- Jiandong Liang and
Mark Green**
- Jason Cong, Yuzheng Ding,
Tong Gao and
Kuang-Chien Chen**
- Václav Skala**
- Marshall Walker**
- Ian J. Hodgkinson and
Robert P. O'Shea**
- Wen-Bang Liu, Ming-Tat Ko
and Ruei-Chuan Chang**
- Helen Sims-Coomber and
Ralph Martin**
- Joachim Rix, Andreas
Burkert, Max Ungerer and
Monika Bräckelmann**
- Kamen Kanev and
Kris Dockx**
- Dominique Bechmann**
- Michael T. Rosenstein and
James J. Collins**
- Raül Rojas**
- 469 A growth model having the abilities of growth-regulations
for simulating visual nature of botanical trees**
- 481 An efficient form-factor evaluation algorithm for environments
with curved surfaces**
- 487 Geometric and computational aspects of manufacturing processes**
- 499 JDCAD: A highly interactive 3D modeling system**
- 507 LUT-based FPGA technology mapping under arbitrary net-delay models**
- Technical Section*
- 517 $O(\lg N)$ line clipping algorithm in E^2**
- 525 Interpolation with hybrid B-spline surfaces**
- 531 Constraints imposed by Mach bands on shape from shading**
- 537 An interactive approach to planning snake motion**
- 543 An implementation of LOGO for elliptic geometry**
- 553 STEP meets PREMO: Product modelling and new presentation techniques**
- 563 A framework for graphically-oriented human computer interactions in intelligent operator support systems**
- 571 Space deformation models survey**
- Chaos and Graphics*
- 587 Visualizing the effects of filtering chaotic signals**
- Announcements*
- 599 Past/future issues**
- 601 Fifth Eurographics Workshop on Animation and Simulation**
- 602 EG '94**
- 603 Eurographics Workshop on Graphics and Visualization Education (GVE)**

- 604 The 9th Eurographics Workshop on Graphics Hardware
- 605 2nd International Workshop on Advanced Teleservices and High-Speed Communication Architectures
- 607 Workshop on Integration of CA-Techniques in Theory and Practice—ICA '94
- 608 1994 Symposium on Volume Visualization—Call for Participation
- 609 Intelligent Multimedia Information Retrieval Systems and Management—RIAO '94
- 611 The Second ACM International Conference on Multimedia
- 613 International Dedicated Conference on Robotics, Motion and Machine Vision
- 614 First IEEE International Conference on Image Processing
- 615 Multimedia Transport and Teleservices

I Software Survey Section

NUMBER 5

*In this issue the special topic is
ADVANCED INTERACTION**Guest Editors: Wolfgang Felger and Klaus Böhm***Wolfgang Felger** and
Klaus Böhm**Yuri A. Tijerino,**
Kenji Mochizuki and
Fumio Kishino**Masaaki Fukumoto,**
Yasuhide Suenaga and
Kenji Mase**A. J. Schwarz** and
B. G. Blundell**P. K. Robertson,**
M. Hutchins,
D. R. Stevenson,
S. Barrass, C. Gunn
and **D. Smith****Yong-Yil Kim, Heedong Ko**
and **Byung-Hong Choe**

- Advanced Interaction*
617 Guest Editor's Introduction
- 621 Interactive 3-D computer graphics driven through verbal instructions: Previous and current activities at ATR
- 633 "Finger-Pointer": Pointing interface by image processing
- 643 Regions of extreme image distortion in rotating-screen volumetric display systems
- 653 Mapping data into colour gamuts: Using interaction to increase usability and reduce complexity
- 667 Virtual reality infrastructure and its application to tele-robotics

Victoria Burrill, Gillie Evans, Dirk Fokken and Kaisa Väänänen	675	The lust to explore space: The attractiveness of interactive video within multimedia applications
Thomas G. West	685	Advanced interaction: A return to mental models and learning by doing
Marko Marhl and Varol Akman	691	<i>Short Technical Notes/Tutorials/Systems</i> On the correct determination of rotational angles for twisted-profiled sweep objects
Eric Andres Muhammad Sarfraz	695	<i>Technical Section</i> Discrete circles, rings and spheres
	707	Cubic spline curves with shape control
Chyi-Hwa Chu, Ming-Guey Chern and Yuang-Cheh Hsueh	715	Image compression by cardinality distribution
V. Belloli, S. Callegari, C. Gatti, M. Della Monica and D. Marini	723	RayFilling: A new method to accelerate ray casting
Michael Frame	733	<i>Chaos and Graphics</i> Sensitivity in cellular automata: Some examples
Eduard Gröller	739	Modeling and rendering of nonlinear iterated function systems
	749	<i>Announcements</i> Past/future issues
	751	International Dedicated Conference on Robotics, Motion and Machine Vision
	752	First IEEE International Conference on Image Processing
	753	Multimedia Transport and Teleservices
	755	Cape '95—First Announcement and Call for Papers
	756	CAD/Graphics '95—Second Announcement and Call for Papers
	I	Software Survey Section

NUMBER 6

In this issue the special topic is
MODELLING AND VISUALIZATION OF SPATIAL DATA IN GIS
Guest Editor: Bianca Falcidieno

Bianca Falcidieno	759	<i>Modelling and Visualizaiton of Spatial Data in GIS</i> Guest Editor's Introduction
George Nagy	763	Terrain visibility

Florian Schröder and Patrick Roßbach	775 Managing the complexity of digital terrain models
Caterina Pienovi and Michela Spagnuolo	785 Handling discrete surfaces by analysis and simulation
K. Ch. Graf, M. Suter, J. Hagger, E. Meier, P. Meuret, and D. Nüesch	795 Perspective terrain visualaiton—A fusion of remote sensing, GIS, and computer graphics
Robert Laurini and Françoise Milleret-Raffort	803 Topological reorganization of inconsistent geographical databases: A step towards their certification
Eliseo Clementini, Jayant Sharma, and Max J. Egenhofer	815 Modelling topological spatial relations: Strategies for query processing
Andrew U. Frank and Sabine Timpf	823 Multiple representations for cartographic objects in a multi-scale tree—An intelligent graphical zoom
Flavio Bonfatti, Gianni Gadda, and Paola Daniela Monari	831 Simulation of dynamic phenomena by cellular automata
<i>Technical Section</i>	
Sandy D. Balkin, Elizabeth L. Golebiewski, and Clifford A. Reiter	837 Rasterization of elliptic curves
Chen Zhou, Renben Shu, and Mohan S. Kankanhalli	845 Handling small features in isosurface generation using Marching Cubes
Tom M. Morrow and Sumit Ghosh	849 DIVIDE: Distributed visual display of the execution of asynchronous, distributed algorithms on loosely coupled parallel processors
Willem H. Walstra, Willem F. Bronsvoort, Joris S. M. Vergeest	861 Interactive simulation of robot milling for rapid shape prototyping
<i>Chaos and Graphics</i>	
Michael Levin	873 Discontinuous and alternate q -system fractals
Clifford A. Reiter	885 Sierpinski fractals and GCDs
<i>Announcements</i>	
	893 Past/future issues
	895 CAPE '95
	896 6th IFAC/IFIP/IFORS/IEA Symposium on Analysis, Design and Evaluation of Man-Machine Systems
	897 CAAD Futures '95
	898 CAD/Graphics '95: The Fourth International Conference on CAD and CG

I Volume 18 List of Contents and Author Index

XV Software Survey Section

AUTHOR INDEX

- Aigrain, P., 93
 Akman, V., 691
 Andres, E., 695
 Angers, M., 119
 Arnold, D. B., 287
 Arquès, D., 373
 Balkin, S. D., 113, 837
 Bao, H., 481
 Barrass, S., 653
 Bechmann, D., 571
 Belloli, V., 723
 Bloor, M. I. G., 161
 Blum, C., 21
 Blundell, B. G., 643
 Böhm, K., 617
 Bonfatti, F., 831
 Bose, P., 487
 Boulic, R., 443
 Bräckelmann, M., 553
 Brodlie, K., 259, 263
 Bronsvoort, W. F., 861
 Bruderlin, A., 453
 Burkert, A., 553
 Burrill, V., 675
 Callegari, S., 723
 Calvert, T., 453
 Canright, D., 231
 Chai, P., 81
 Chang, R.-C., 537
 Chen, K.-C., 507
 Chern, M.-G., 715
 Chia, L. T., 11
 Chiba, N., 469
 Choe, B.-H., 667
 Chong, M. M. S., 209
 Chu, C.-H., 335, 715
 Chua, C. K., 353
 Chung, K.-L., 327
 Clementini, E., 815
 Collins, J. J., 587
 Cong, J., 507
 Dani, S., 363
 Day, A. M., 287
 Della Monica, M., 723
 Diaz, B. M., 281
 Ding, Y., 507
 Dockx, K., 563
 Domik, G. O., 277
 Donner, K., 395
 Duce, D., 3, 21
 Egenhofer, M. J., 815
 Ehrcke, H.-H., 395
 Evans, G., 675
 Falcidieno, B., 759
 Feiger, W., 617
 Fellner, D. W., 143
 Fokken, D., 675
 Frame, M., 119, 239, 733
 Frank, A. U., 823
 Frühauf, T., 73
 Fukumoto, M., 633
 Furukawa, S., 171
 Gadda, G., 831
 Gallop, J., 263
 Gao, T., 507
 García, N., 21
 Gatti, C., 723
 Gay, R. K. L., 209
 Gay, R., 353
 Gerfelder, N., 35
 Ghosh, S., 849
 Gilbert, W. J., 227
 Golebiowski, E. L., 113, 837
 Graf, K. Ch., 795
 Grange, O., 373
 Green, M., 499
 Gregory, J. A., 153
 Griffiths, J. W. R., 11
 Gröller, E., 739
 Gunn, C., 653
 Haas, S., 193
 Hagger, J., 795
 Hallauer, J. J., 105
 Helmberg, C., 143
 Hewitt, T., 263
 Hewitt, W. T., 269
 Hinds, B. K., 87
 Hodgkinson, I. J., 531
 Hoheisel, W., 353
 Hollasch, S., 249
 Howard, T. L. J., 269
 Hsueh, Y.-C., 335, 715
 Huang, Z., 443
 Hutchins, M., 653
 Ip, H. H. S., 343
 Johnstone, J. K., 47
 Joly, P., 93
 Jung, V., 219
 Jüttler, B., 315
 Kanev, K., 563
 Kankanhalli, M. S., 845
 Kim, Y.-Y., 667
 Kimura, F., 171
 Kishino, F., 621
 Ko, H., 667
 Ko, M.-T., 537
 Koller, W., 395
 Krömker, D., 3
 Lafon, J.-C., 295
 Larkin, S., 263
 Laurini, R., 803
 Levin, M., 873
 Liang, J., 499
 Lilley, C. C., 269
 Lin, F., 269
 Liu, J., 209
 Liu, W.-B., 537
 Maddock, S. C., 299
 Madeira, J. S., 309
 Marhl, M., 691
 Marini, D., 723
 Martin, R., 543
 Mase, K., 633
 McCartney, J., 87
 Meier, E., 795
 Meuret, P., 795
 Milleret-Raffort, F., 803
 Miura, M., 469
 Mochizuki, K., 621
 Moeller, E., 21
 Monari, P. D., 831
 Morrow, T. M., 849
 Mukai, S., 171
 Muraoka, K., 469
 Nagy, G., 763
 Nakamura, Y., 201
 Neuss, C., 35
 Nüesch, D., 795
 O'Shea, R. P., 531
 Obi, M., 171
 Ohshida, K., 469
 Owen, G. S., 259, 305
 Parish, D. J., 11
 Peng, Q., 481
 Pérez-Luque, M. J., 21
 Peyn, H., 21
 Philip, A. G. D., 239
 Pickover, C. A., 407
 Pienovi, C., 785
 Reiter, C. A., 113, 837, 885
 Rix, J., 553
 Robertson, P. K., 653
 Robucci, A., 239
 Rojas, R., 593
 Rosenstein, M. T., 587
 Roßbach, P., 775
 Saito, N., 469
 Sarfraz, M., 61, 153, 707
 Schröder, F., 775
 Schwarz, A. J., 643
 Semwal, S. K., 105
 Sharma, J., 815
 Shene, C.-K., 47
 Shu, R., 845
 Sims-Coomber, H., 543
 Skala, V., 517
 Smith, D., 653
 Southard, D. A., 1
 Spagnuolo, M., 785
 Sprott, J. C., 417
 Stevenson, D. R., 653
 Strack, R., 21
 Straßer, W., 395
 Suenaga, Y., 633
 Sugiura, M., 201
 Sun, J., 463
 Sutcliffe, D., 21
 Suter, M., 795
 Tan, H. N., 209
 Tang, Z., 441
 Teixeira, J. C., 309
 Teo, C. G., 453
 Thalmann, D., 443
 Thalmann, N. M., 443
 Thompson, D. E., 363
 Tijerino, Y. A., 621
 Timpf, S., 823
 Tohline, J. H., 363
 Toussaint, G., 487
 Ungerer, M., 553

Author Index

- Väänänen, K., 675
VanArsdale, D., 177
Vergeest, J. S. M., 861
Waggoner, W. N., Jr., 363
Walker, M., 525
Walstra, W. H., 861
Walter, D., 127
West, T. G., 685
Willis, P., 263
Wilson, M. J., 161
Wong, H. T. F., 343
Xia, W., 81
Xuan, G., 81
Yamazaki, S., 7
Yan, W.-M., 327
Yoshimura, T., 201
Yuen, P. K., 153
Zhang, J. J., 87
Zhao, X., 463
Zhou, C., 845

